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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/709,730      | 05/25/2004  | Alexander Zazovsky   | 56.0775             | 3729             |

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| EXAMINER |
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BOMAR, THOMAS S

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| ART UNIT | PAPER NUMBER |
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3672

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/709,730

Applicant(s)

ZAZOVSKY ET AL.

Examiner

Shane Bomar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/28/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8, drawn to a composition composing a hydraulic oil and surfactant, wherein the surfactant forms micelles in the oil, classified in class 508, subclass 579.
  - II. Claims 9-15, drawn to a tool and method for protecting the tool, classified in class 166, subclass 244.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product can be used in any known process other than protecting a tool by filling a chamber of the tool with the hydraulic fluid, such as protecting the outer surface of tubulars from rust by preventing the migration of water onto the surfaces.

3. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

4. During a telephone conversation with David Cate on August 29, 2006 a provisional election was made without traverse to prosecute the invention of Group II, claims 9-15.

Affirmation of this election must be made by applicant in replying to this Office action. Claims

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1-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

6. Claim 12 is objected to because of the following informalities: the claim is not in the proper Markush grouping format, i.e., it does not have --selected from the group consisting of-- as claim 15 does. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: protecting a tool. The claim is called a “method for protecting a tool” but no step of protection is given, so it is unclear what in the body of the claim provides protection or how the protection is achieved.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 9 and 13 (as best understood to include a protecting step) are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 6,130,190 to Gunsell et al.

Gunsell et al disclose a method for protecting a tool, such as an engine, comprising: providing a hydraulic fluid composition comprising a hydraulic oil and a surfactant capable of forming micelles in the hydraulic oil (see col. 1, lines 6-10; col. 2, lines 19-21; and col. 3, lines 36-42); and filling a hydraulic chamber in the engine with the hydraulic fluid composition, as is notoriously known in the art.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gunsell et al in view of US patent 6,461,393 to Krull et al.

Gunsel et al teach the tool of claim 9 that contains a hydraulic fluid, i.e., lubricating oil, in a chamber (see also col. 2, lines 59-64), however it is not explicitly taught that the fluid comprises an amphiphilic copolymer.

Krull et al teach a lubricating oil similar to that of Gunsel et al, with the further addition of an amphiphilic copolymer to improve the lubricating properties of the oil (see the Abstract and col. 10, lines 11-34). It would have been obvious to one of ordinary skill in the art, having the teachings of Gunsel et al and Krull et al before him at the time the invention was made, to modify the lubricating fluid taught by Gunsel et al to include the amphiphilic copolymer of Krull et al, in order to obtain a fluid with improved lubricity. One would have been motivated to make such a combination because the references address the narrow problem of improving the lubricating properties of lubricating fluids.

13. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,339,886 to Reinhardt in view of US patent 3,405,067 to Fay.

Regarding claims 9 and 11-15, Reinhardt teaches providing a downhole sensor 37 located within chamber 41 that receives hydraulic oil from reservoir 34 (see Fig. 3 and col. 4, lines 54-67). However, it is not explicitly taught that the hydraulic oil contains a surfactant capable of forming micelles in the oil.

Fay teaches a hydraulic oil for use in harsh environments similar to that of Reinhardt (see the Abstract and col. 7, lines 4-16). It is further taught that a surfactant is added to the oil and is capable of forming micelles in the oil, i.e., the surfactant forms an emulsion with the water (see col. 1, line 54 through col. 2, line 31). It would have been obvious to one of ordinary skill in the art, having the teachings of Reinhardt and Fay before him at the time the invention was made, to

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modify the hydraulic oil taught by Reinhardt to include the surfactant emulsifier of Fay, in order to obtain a fire-resistant hydraulic fluid. One would have been motivated to make such a combination since it is notoriously known that tools such as downhole sensors can be exposed to extremely high temperatures in deep wells, therefore the surfactant emulsifier taught by Fay would provide the hydraulic fluid with the necessary fire-resistant properties needed to survive the extreme temperatures encountered downhole.

Regarding claim 10, the amphiphilic copolymer taught by Krull et al above can analogously be applied to this combination to improve the lubricity of the oil.

### ***Conclusion***

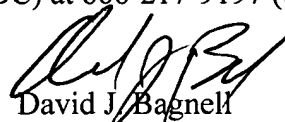
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gissler et al teach a downhole tractor that uses hydraulic fluid in a chamber (see Fig. 25 and associated description). Nich teaches using the polyoxyalkylene glycol surfactant as the hydraulic oil itself (without the addition of an oil). Blezard et al teach a composition similar to that currently claimed, although the main constituent is water instead of oil (see the Abstract). Bell et al, Fidoe et al, Fujieda et al, Geisler et al, Kanamori, McCoy et al, Mody et al, Nguyen et al, Puerto, and Titus teach several other inventions of particular interest to the instant invention.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

tsb



September 1, 2006